

# GaAs IC Symposium

*The 1995 IEEE GaAs IC Symposium will be held October 29 through November 1, 1995 at the Sheraton Harbor Island Resort in San Diego, CA, USA. Over the past 17 years the Symposium has been the preeminent international forum on the most recent advancements in ICs using GaAs, InP, and other compound semiconductor materials. Coverage embraces all aspects of the technology including materials issues, device fabrication, IC design and testing, volume manufacturing, and systems implementation. This year emphasis has been placed on low power/low voltage designs, wireless communications, and GaAs IC manufacturing.*

This year's technical program consists of 74 papers which were selected from 143 worldwide submissions. There are 12 invited papers which were solicited from industry experts from around the world. They cover a wide range of topics including GaAs ICs for wireless communications, optical communications systems, GaAs in medical applications, advanced technologies such as Complementary GaAs- and InP-based heterojunction bipolar transistors, 150 mm diameter GaAs substrates, and several other exciting topics. In addition to the technical presentations, there will be three panel sessions entitled:

- i. "Cost Driven Multifunction Millimeter Wave ICs: Are They Possible?"
- ii. "High Speed Digital Shakeout: Co-Existing With Silicon", and
- iii. "Technology Choices for Commercial Power Amplifiers".

Of special interest is this year's Short Course entitled "Practical RF circuits for Wireless Applications". This one day course is designed to provide participants with insights into the technology underlying wireless applications. The manner in which GaAs technology can be applied to meet the needs of these types of applications will be a major point of focus. Instructors are experts from leading companies in the wireless telecommunications industry.

The short course will be held all day Sunday, October 29th preceding the conference.

Organizer: Phil Wallace, Anadigics. Tel/fax: [1] (908) 412-5987 / 5985, or email: wallacepw@aol.com.

## Vendor Product Forums

The 1995 Vendor Product Forums, coordinated by Jim Komiak of Lockheed Martin, will provide an opportunity for potential customers or business partners and other interested parties to learn about some of the latest products available in the GaAs IC marketplace. This year, there will be two forums with the first covering IC products for mobile communications, consumer, and military applications, and the second forum addressing integrated circuit packaging and foundry services.

For those new to the GaAs industry, the Symposium will again offer the popular primer short course, "Basics of GaAs ICs", which is an introductory-level class intended for those with little or no experience in GaAs ICs.

The Sunday evening course will cover materials and processes, device operation, and both analog/microwave as well as digital ICs. The course is tailored to provide the specific background needed for participants to understand and appreciate the papers presented in the Symposium Technical Program. The material is designed to provide a brief overview of concepts and issues unique to GaAs ICs so that participants will be better able to profit from the Symposium Technical Program.

The class will be taught by Donald B. Estreich, a Hewlett-Packard manager with 17 years of experience in design and application of GaAs analog and microwave ICs, and Stephen Long, a University of Cali-

fornia, Santa Barbara Professor of Electrical Engineering, also with 17 years of experience in GaAs IC development. The class will be held on Sunday evening, October 29, from 5:30 p.m. to 8:30 p.m. Organizer: Prof. Richard Brown, University of Michigan, tel/fax: [1] (313) 763 4207 / 9 3 2 4, or email: brown@engin.umich.edu

## GaAs IC Tech

Attendees will have the opportunity to talk and visit with CAD tool, material, process equipment, and device suppliers at the GaAs IC Technology Exhibition which will be held concurrently with the Symposium on October 30 and 31, 1995 in the Lower Exhibit Hall.

Exhibit hours are Monday, October 30, from 5:00 p.m.- 8:00 p.m.; and Tuesday, October 31, from 8:00 a.m.- 5:00 p.m. An Opening Reception will be held in the Exhibit area on Monday, October 30, from 5:00 p.m.- 7:30 p.m.

On Tuesday, October 31, the Exhibitors will host a noontime Exhibition Luncheon in the Lower Exhibit Hall.

The Exhibition will be open to all Symposium attendees. If organizations are interested in exhibiting, please contact Harry Kuemmerle, VIP Meetings & Conventions, tel/fax: [1] (310) 459-4691 / 0605.

## Social sides

On the lighter side, this year's Symposium offers several social events

including a welcoming reception on Sunday evening, an exhibition opening reception on Monday night, and the highlight of the Symposium social calendar, the Symposium Halloween party to be held at Sea World on Tuesday evening. San Diego offers a wonderful setting for this year's conference. The Sheraton Harbor Island Resort is just minutes from the San Diego International Airport providing attendees easy access to and from the conference. San Diego, the second largest city in California, is both a modern metropolis and a popular year-round resort. Along with pristine beaches, abundant golf and literally every water sport imaginable, local attractions include the world famous San Diego Zoo, Sea World (site of our Tuesday evening Theme Party), Balboa Park and the historic Gas Lamp district. For a more cultural perspective, there's the acclaimed San Diego Opera and the Old Globe theater. Plus, downtown San Diego is just minutes away. The Sheraton provides complimentary shuttle service (every 2 hours) to downtown's Horton Plaza for shopping and to Coronado Island. Various city and area tours are available, many with pick-ups at the hotel, and these can be found in the local telephone directory.

The GaAs IC Symposium is jointly sponsored by the IEEE Electron Devices and the Microwave Theory & Techniques Societies. For further information on the Symposium content please contact Ellisa Sobolewski, Advanced Research Projects Agency. Tel: [1] (703) 696-2254 / 2203, email: [lsobolewski@arpa.mil](mailto:lsobolewski@arpa.mil). An electronic version of the advance program is available, send an email request to [gaasic95@cs1.sps.mot.com](mailto:gaasic95@cs1.sps.mot.com).

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### **ATMI introduces SiC wafers and epitaxial services**

Danbury, Conn., Advanced Technology Materials, Inc. (ATMI), a leading developer of semiconductor materials and devices, has announced its silicon carbide (SiC) single crystal wafers and SiC epitaxial growth services to developers of SiC-based devices. ATMI's entry as a SiC wafer and epitaxy supplier helps validate this emerging technology. SiC-based devices outperform existing silicon devices by operating at higher power, at higher voltages, and at significantly higher operating temperatures. Silicon carbide substrates may also play a key role in both blue LEDs and blue solid state lasers.

Dr. Duncan Brown, ATMI Vice President said "ATMI is a customer focused technology company. As a true technology partner with developers and manufacturers, we strive to help them successfully commercialize their new devices, supporting our commitment to meet their needs with our SiC substrates and epitaxy services. We believe we will become the supplier of choice for many users because of our continuous improvement programs, in-house epitaxial process experience, and our willingness to partner in silicon carbide device development."

ATMI, with headquarters in Danbury, Connecticut, is also developing diamond-based semiconductors. It develops, manufactures, and sells materials and environmental equipment to the worldwide semiconductor industry.

Contact: Dean Hamilton or Tim Murray, ATMI, Tel/fax: [1] 203 794-1100 / 794-1100. Email: [deanhamilton@atmi.com](mailto:deanhamilton@atmi.com) or [tmurray@atmi.com](mailto:tmurray@atmi.com).

# PROMECEME

## Electronics

### ASSEMBLY

#### **BONDING WIRES**

AFW - MULLER

#### **BONDING CAPS-WEDGES**

KS - MICROSWISS

### MATERIALS

#### **SILICON WAFERS**

UNISIL

#### **GALLIUM ARSENIDE WAFERS**

FREIBERGER

#### **GaAs - InP RECLAIM**

III - Vs RECLAIM

#### **PBN CRUCIBLES**

SINTEC CVD

#### **ARSENIC 7 N 5**

FURUKAWA

#### **GALLIUM 8 N**

RHONE POULENC

#### **INDIUM 7 N**

RASA

#### **ALUMINIUM 6 N**

VMC

#### **BERYLLIUM 6 N**

ATOMERGIC Chemetals

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